

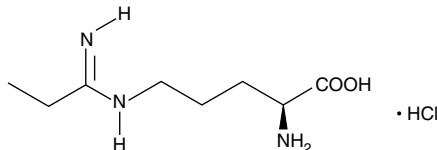
Product Information



Methyl-L-NIO (hydrochloride)

Item No. 10010252

CAS Registry No.: 150403-96-6
Formal Name: N⁵-(1-iminopropyl)-L-ornithine, monohydrochloride
MF: C₈H₁₇N₃O₂ • HCl
FW: 223.7
Purity: ≥98%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid



Laboratory Procedures

For long term storage, we suggest that methyl-L-NIO (hydrochloride) be stored as supplied at -20°C. It should be stable for at least two years.

Methyl-L-NIO (hydrochloride) is supplied as a crystalline solid. Methyl-L-NIO (hydrochloride) is sparingly soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. For biological experiments, we suggest that organic solvent-free aqueous solutions of methyl-L-NIO (hydrochloride) be prepared by directly dissolving the methyl-L-NIO (hydrochloride) compound in aqueous buffers. The solubility of methyl-L-NIO (hydrochloride) in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Nitric oxide synthase (NOS) catalyzes the conversion of L-arginine to nitric oxide (NO) and citrulline. Methyl-L-NIO (hydrochloride) is a competitive NOS inhibitor that competes with L-arginine for the amino acid binding site. It is a more potent inhibitor of nNOS ($K_i = 3.0 \mu\text{M}$) than eNOS ($K_i = 10.0 \mu\text{M}$) or iNOS ($K_i = 9.5 \mu\text{M}$).¹

Reference

1. Babu, B.R. and Griffith, O.W. N⁵-(1-Imino-3-butenyl)-L-ornithine. A neuronal isoform selective mechanism-based inactivator of nitric oxide synthase. *J. Biol. Chem.* **273**, 8882-8889 (1998).

Related Products

For a list of related products please visit: www.caymanchem.com/catalog/10010252

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WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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Said refund or replacement is conditioned on Buyer giving written notice to Cayman within thirty (30) days after arrival of the material at its destination. Failure of Buyer to give said notice within thirty (30) days shall constitute a waiver by Buyer of all claims hereunder with respect to said material.

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